HRSD
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Date: February 1, 2016

To: EPA Water Docket No. EPA-HQ-OW-2015-0753
Environmental Protection Agency
1200 Pennsylvania Ave. NW.
Washington, DC 20460

Attention: Docket ID No. EPA-HQ-OW-2015-0753

Subject: Request for Scientific Views on the Draft Recommended Aquatic Life Ambient Water Quality Criteria for Cadmium – 2015 (EPA-HQ-OW-2015-0753)

HRSD, a wastewater treatment entity serving 17 counties and cities in southeastern Virginia, is pleased to offer the following comments concerning the referenced document.

HRSD is supportive of the EPA effort to update its national recommended cadmium ambient water quality criteria (AWQC). With the availability of new cadmium laboratory aquatic toxicity data and the consideration of water hardness on cadmium toxicity (since the 2001 document) the development of a new criteria is appropriate.

The inclusion of new species (70) and genera (49) in the proposed 2015 referenced cadmium criteria document is generally supported by HRSD. Addition of new and scientifically sound toxicity data is and should always be supported in the effort to develop the most accurate criteria regardless of the toxicant of question.

When acceptable data is available, HRSD supports the use of point estimate values as opposed to hypothesis test (NOEC and LOEC) derived MATC effects. The value of point estimate derived values should be promoted in this and any future ambient water quality criteria studies. Point estimates not only provide quantifiable toxicity values but additional information, such as dose response effects, which are important to interpreting test results.

Of concern for HRSD is the continued lack of estuarine/marine chronic cadmium toxicity data. Acceptable estuarine/marine cadmium chronic toxicity data has not been generated since the previous 2001 AWQC was released. For the 2001 cadmium criteria, chronic toxicity data was only available for two genera (*Americamysis* and *Mysidopsis*). The 2015 estuarine/marine chronic toxicity data base now only consists of a single genera (*Americamysis*) after the reclassification of *Mysidopsis bigelowi* to *Americamysis bigelowi*. In an effort to improve the quality and accuracy of cadmium water quality criteria HRSD requests that EPA undertake additional chronic toxicity studies in an effort to expand the estuarine/marine chronic toxicity data available for criteria review. Due to the complete absence of acceptable estuarine/marine vertebrate test subject data EPA should specifically make an effort to test additional vertebrate

models. The use of freshwater acute chronic ratios is not disapproved of in this case, however more estuarine/marine data is needed if scientifically reliable saltwater chronic cadmium criteria are to be developed.

HRSD objects to the use of *Neomysis integer* in the calculation of the 2015 acute estuarine/marine AWQC values. *N. integer* is a new species added to the calculation of the proposed estuarine/marine FAV and CMC values. In the 2001 cadmium document, toxicity data from the mysid species *Mysidopsis bigelowi* and *Americamysis bahia* was used in calculating these values. For the 2015 document, as previously stated, *M. bigelowi* and *A. bahia* are combined into the single genus *Americamysis* and *N. integer* is added to the calculation. The addition of toxicity data for this third mysid species is questioned by HRSD due to the potential that it is a mysid species not native to the United States. The addition of a potentially non-native mysid species in the calculation of acute estuarine/marine AWQC values is of concern for HRSD given the fact that two mysid species (*M. bigelowi* and *A. bahia*) are already included in current calculations. HRSD supports the intent of the 1985 AWQC Guidelines to use data representing the diversity of species found in the United States because a diverse group of test subjects is more representative of ecosystems as a whole. However, given that the taxonomic group being represented by Neomysis is already represented with data from two other species, HRSD requests documentation confirming the naturally occurring geographic distribution of *N. integer* in the continental United States and, hence, justification and use of data for this species in the calculation of the criteria. If *N. integer* is in fact a non-native species HRSD requests that the use of *N. integer* toxicity data in the calculation of acute estuarine/marine cadmium criteria be justified or this data needs to be removed from the FAV database. The use of non-native species must be carefully reviewed to ensure that the sensitivities of these species are representative of species native to North America.

HRSD appreciates consideration of these comments and looks forward to reviewing any subsequent documents related to the AWQ cadmium criteria.

Sincerely,

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